3.9 Visual Quality

FHWA visual quality assessment techniques and UDOT policies were used for guidance to assess potential visual impacts in the project corridor. The viewshed for the I-15 highway varies throughout the corridor. Existing land uses and the natural landscape were considered in the definition of existing visual character and quality and to provide the context for assessing impacts of the alternatives. Photographs at representative locations along I-15 and the aerial mapping were used to provide a qualitative description of potential visual changes associated with the proposed improvements. Potential impacts are discussed in terms of views of I-15 from adjacent properties and views from I-15 by travelers on the freeway.

Within each of the four geographic sections defined for the I-15 corridor, representative viewshed locations were selected for visual quality analysis, including views facing toward the highway from nearby locations. The affected environment is described through the use of terms identified in the FHWA guidance on visual quality assessment including the following elements:

Vividness: The memorability of the visual impression created by contrasting landscape elements as they combine to form a striking and distinctive visual pattern.

Intactness: The integrity of the visual order in the natural and human-created landscape, and the extent to which the landscape is free from visual encroachment.

Unity: The degree to which the landscape's visual resources join together to form a coherent, harmonious visual pattern. Unity refers to the compositional harmony of inter-compatibility between landscape elements.

Views are described looking from the existing freeway, and looking toward the freeway from adjacent parcels or roads. Where applicable, foreground or close-in views, middleground, and background or distant views are described. Figure 3.9-1 shows the geographic sections and view points.

3.9.1 Affected Environment

The overall visual quality of I-15 is considered average for a highway corridor and for highway interchange areas. No views of the highway are particularly memorable or distinctive and would therefore not rate highly in the vividness category. However, certain views from I-15 are memorable and distinctive because they often include distant views of the Wasatch Mountains, Utah Lake, and patches of farmland and open space and have contrasting landscape elements. Such views do form a somewhat "striking and distinctive pattern" in concert with one another, as a defined requisite for vividness according to FHWA's key concepts of visual quality (FHWA, 1988).

3.9.1.1 South Utah County Section

Views of the I-15 corridor between the South Payson Interchange and the University Avenue Interchange are characterized by the freeway in the foreground, open spaces in the middle ground and mountains in the background. Figures 3.9-2 and 3.9-3 show representative views of this section of the I-15 corridor.

I-15 has two lanes in each direction between the South Payson Interchange and the Spanish Fork Main Street Interchange. Visual elements in this section include sparsely vegetated grasslands with low-lying shrubs and trees; areas of residential development immediately adjacent to the I-15 right-of-way and usually facing away from the highway; intermittent open spaces; large scale commercial/light industrial developments; freeway overpass and underpass structures; commercial signage including billboards near the right-of-way; utility and light poles; and areas of agricultural land characterized by flat, geometric green patches.

Between the Spanish Fork Main Street Interchange and the University Parkway Interchange, there are three lanes of traffic in each direction such that the I-15 appears wider and has a larger overall footprint. The area is similar,

visually, to the more southern section, with the major difference being the additional lane which increases the surface area of the highway. Views from I-15 include increased visual clutter associated with more dense and diverse development adjacent to the freeway. As the I-15 north and southbound lanes are closer to one another, the freeway corridor appears more urbanized. Pockets of wetlands are visible along the edge of the travelways and are more prominent at the interchanges. Other visual elements include earthen berms adjacent to the highway, some with trees which somewhat obstruct the distant views of the Wasatch Mountains, as well as more numerous billboards, commercial signs and overhead utility infrastructure.

The overall visual quality of the South Utah County section of the project corridor is considered average for a highway corridor and for highway interchange areas.

As the section is characterized by intermittent residential, commercial and light industrial uses, as well as patches of trees and vegetation among an arid landscape backdrop, the area does not possess a high level of intactness, particularly from the two view sheds at the North Payson Interchange and the Spanish Fork Main Street Interchange. These interchanges, particularly the Spanish Fork Main Street Interchange, possess a significant amount of existing visual encroachment. FHWA's other key concept of unity, or "the degree to which the visual resources of the landscape join together to form a coherent, harmonious visual pattern" is not seen at a high level at either of the typical interchanges in the south section. The open spaces near the North Payson Interchange provide visual contrast from I-15 and are sparsely vegetated. The Spanish Fork Main Street Interchange is similar in that there is a lack of harmony between the highway, natural and landscaped vegetation and adjacent commercial development.

3.9.1.2 Central Utah County Section

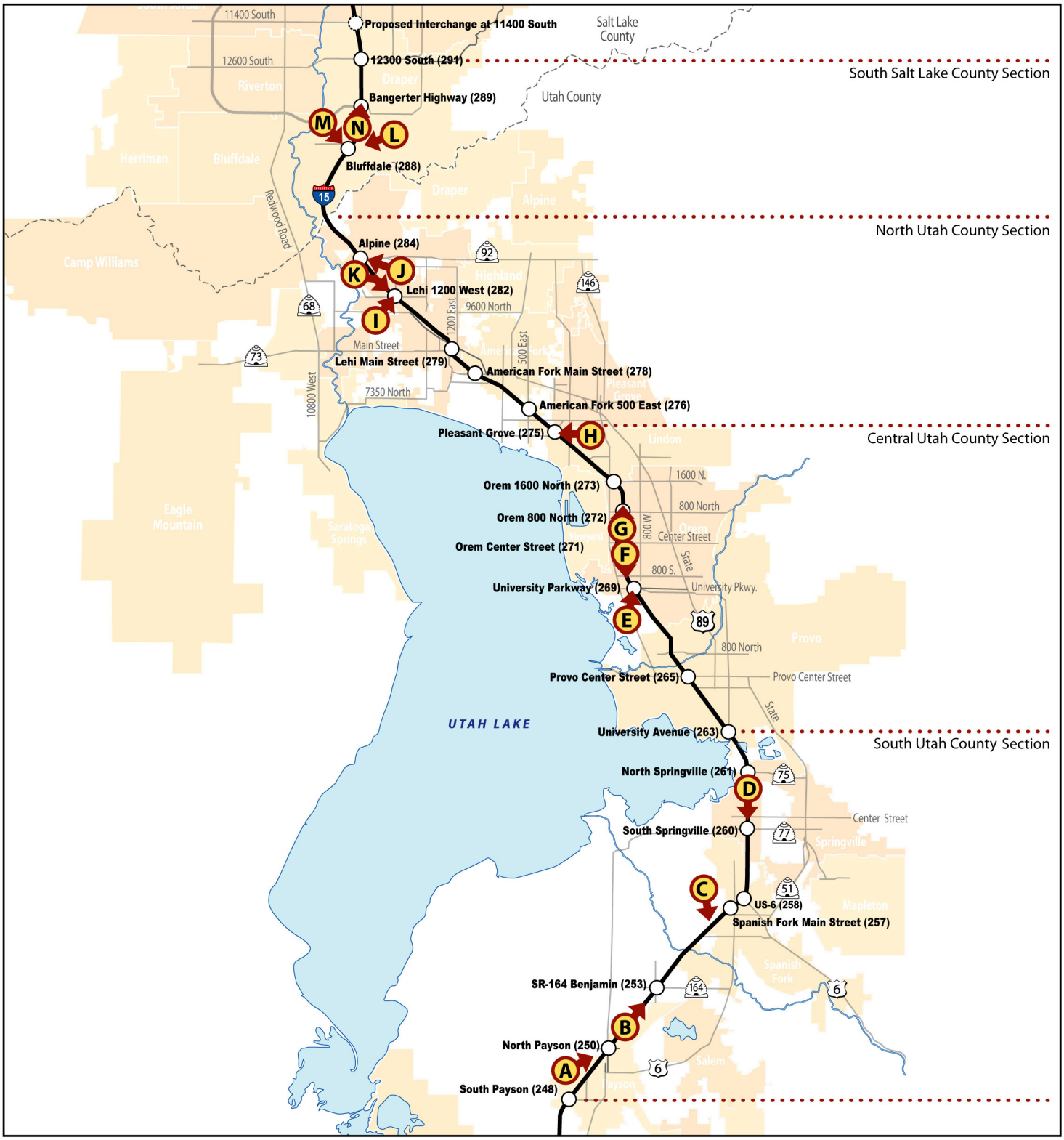
The Central Utah County section of I-15 passes through the cities of Provo and Orem such that the visual context of the freeway is one of an urbanized area. Figures 3.9-4 and 3.9-5 show representative views of this section of the I-15 corridor.

Typical foreground views from I-15 are dominated by the freeway asphalt travel lanes and shoulders extending to a gravel right-of-way. These views transition to middle ground views that include signs and commercial and residential buildings near the I-15. Trees, shrubs, and fencing are visible near developed areas. Frequent middle ground views also include roadway signs, billboards and commercial signage, power lines and poles, freeway light poles and freeway overpasses. Trees and rooftops are visible in background views. Distant mountain views are frequently visible from I-15. Utah Lake to the west can be seen from elevated portions of I-15.

Views toward/from adjacent properties vary according to whether the freeway is elevated, at-grade, or depressed. Because much of the I-15 follows the existing flat topography, some portion of the freeway is generally in view from most adjacent areas. Typically, foreground and middle ground views from the properties adjacent to I-15 include views of nearby roads, light poles and roadside vegetation including trees, shrubs and grasses.

The overall vividness of views in this section is average as the adjacent land uses are mixed and there is a lack of distinctive landscape elements. This is particularly true of the foreground and middle ground views. Background views in most instances are dominated by distant, but very visible mountain ranges. These views characterize much of the I-15 corridor and provide a striking landscape element in contrast to the less vivid urbanized middle and foreground views.

Visual unity is lacking in that visual harmony, particularly in the foreground and middle ground views, is often interrupted by different human-created features in this generally urbanized area of the I-15 corridor.



LEGEND:

A - N Viewpoints

Figure 3.9-1

Viewpoint Locations and Directions

N

VIEWPOINT A VIEW OF NORTH PAYSON INTERCHANGE AREA FROM MAIN STREET, PAYSON (SOUTH UTAH COUNTY SECTION)

VIEWPOINT B VIEW FROM NORTHBOUND I-15 (SOUTH UTAH COUNTY SECTION)

Figure 3.9-2

Viewpoint Locations A & B

VIEWPOINT C VIEW OF SPANISH FORK MAIN STREET INTERCHANGE AREA FROM MAIN STREET, SPANISH FORK (SOUTH UTAH COUNTY SECTION)

VIEWPOINT D VIEW FROM SOUTHBOUND I-15 (SOUTH UTAH COUNTY SECTION)

Figure 3.9-3

Viewpoint Locations C & D

VIEWPOINT E VIEW OF UNIVERSITY PARKWAY INTERCHANGE AREA FROM 1410 SOUTH, OREM (CENTRAL UTAH COUNTY SECTION)

VIEWPOINT F VIEW FROM SOUTHBOUND I-15 (CENTRAL UTAH COUNTY SECTION)

Figure 3.9-4

Viewpoint Locations E & F

VIEWPOINT G VIEW FROM NORTHBOUND I-15 (CENTRAL UTAH COUNTY SECTION)

VIEWPOINT H VIEW OF PLEASANT GROVE INTERCHANGE AREA, PLEASANT GROVE (CENTRAL UTAH COUNTY SECTION)

Figure 3.9-5
Viewpoint Locations G & H

3.9.1.3 North Utah County Section

Views from I-15 in the north section are similar to the other sections and are dominated by travel lanes, medians and shoulders in the foreground. Figure 3.9-6 and View K on Figure 3.9-7 show representative views of this section of the I-15 corridor. Visual elements include freeway overpasses, power lines, power poles, freeway light poles, and billboards. Varying views of wetlands along the edge of the travelway, commercial or residential buildings, trees, shrubs and grasses are visible in the middle ground. These views transition to distant views of building roofs, vegetation, and mountains in the background. Utah Lake to the west can be seen from elevated portions of I-15.

Overall vividness is average for foreground and middle ground views in most of this section. Areas where background views are dominated by mountains do provide a more memorable element for freeway travelers, particularly south bound travelers entering Utah County as they are presented with a view of the entire valley including Utah Lake, mountains to the east and west, rural and urbanized areas in between. Visual integrity and unity diminish as lands adjacent to the freeway are developed. Development is interspersed with views of trees and shrubs, or grasses and desert soils in other areas.

The views towards I-15 from adjacent properties include views of buildings or vegetation that partially obscure the freeway.

3.9.1.4 South Salt Lake County Section

Views from I-15 to the west are of a relatively undeveloped portion of southern Salt Lake County as I-15 passes Point of the Mountain. North of Point of the Mountain, the views are of a fully urbanized landscape with distant views of the Wasatch Mountains to the east, Oquirrh Mountains to the west, and the Great Salt Lake in the far distance. As I-15 follows the contour of Point of the Mountain and is at a higher elevation than the surrounding valley, views from I-15 to the west, north and south are expansive and extend in excess of 10 miles. Figures 3.9-7 and 3.9-8 show representative views of this section of the I-15 corridor.

3.9.2 Impacts of Alternatives

In evaluating the potential visual impacts of the I-15 alternatives, UDOT's adherence to the principles of Context Sensitive Solutions were considered. The three guiding principles are: 1) address the transportation need, 2) be an asset to the community, and 3) be compatible with the natural and built environment. UDOT has achievement criteria for each of these principles. The criteria that most apply to the visual environment are to minimize intrusion and to be aesthetically appropriate.

3.9.2.1 Alternative 1: No Build

Alternative 1 would not have any impacts on the existing visual quality along I-15. Although the visual quality of the highway corridor for travelers on I-15 may change over time, this would result from changes to existing land uses along the corridor and would not be the result of Alternative 1.

3.9.2.2 Alternative 4: I-15 Widening and Reconstruction

Alternative 4 would add new human-created elements to the visual setting along I-15. These elements include retaining walls, frontage roads, new interchanges and overpasses, and noise barriers. Depending on the location, these elements may be visible to travelers on I-15 as well as to viewers from adjacent properties. Potential visual quality changes associated with these improvements are discussed by geographic section. Visual impacts would vary by the magnitude of change, the visibility of change and the existing conditions at various locations.

The noise barrier heights and lengths are those generated by the analysis conducted using the TNM noise model and described in Section 3.7 of this chapter.

VIEWPOINT I VIEW OF LEHI 1200 WEST INTERCHANGE AREA FROM 1900 NORTH, LEHI (NORTH UTAH COUNTY SECTION)

VIEWPOINT J VIEW OF ALPINE INTERCHANGE AREA FROM FRONTAGE ROAD, LEHI (NORTH UTAH COUNTY SECTION)

Figure 3.9-6

Viewpoint Locations I & J

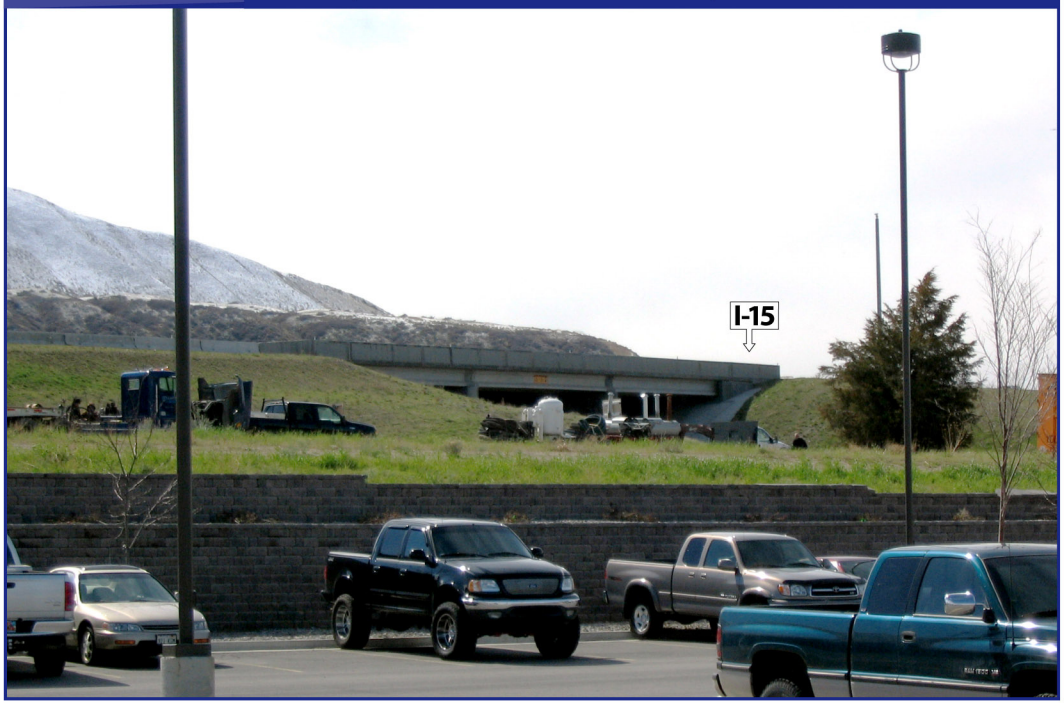
VIEWPOINT K VIEW FROM SOUTHBOUND I-15 (SOUTH SALT LAKE COUNTY SECTION)

VIEWPOINT L VIEW OF 14600 SOUTH INTERCHANGE AREA FROM MINUTEMEN DRIVE, DRAPER (SOUTH SALT LAKE COUNTY SECTION)

Figure 3.9-7

Viewpoint Locations K & L

VIEWPOINT M VIEW OF 14600 SOUTH INTERCHANGE AREA FROM PONY EXPRESS ROAD, DRAPER (SOUTH SALT LAKE COUNTY SECTION)



VIEWPOINT N VIEW FROM NORTHBOUND I-15 (SOUTH SALT LAKE COUNTY SECTION)

Figure 3.9-8

Viewpoint Locations M & N

South Utah County Section

In this section of I-15, the principle visual impact would result from the addition of noise barriers. Three noise barriers are needed to provide noise attenuation for this section of I-15, as shown in Table 3.7-8 in Section 3.7.4 Noise Mitigation. The barriers would be located on both sides of I-15. Two of these barriers would be 12 feet high while the third would be 8 feet high. The longest would be over 8,000 feet while the others would be 3,585 feet and 3,844 feet in length. They would generally be constructed at the edge of the I-15 mainline and/or its access ramps.

For properties that currently abut I-15, these noise barriers would introduce a new and very visible infrastructure to their views of I-15. Travelers on I-15 would have their views of the valley to the west and the Wasatch Range to the east reduced by the new barrier. The visibility of billboards from I-15 would also be reduced by the noise barriers.

The addition of travel lanes would introduce a minor new visual element as they are an extension of the existing I-15 infrastructure and represent an increase in paved area. Alternative 4 would remove existing vegetation within the existing right-of-way but would be replaced by appropriate and sustainable landscaping. These changes would not be substantial as they are modifications to existing visual elements associated with I-15.

The realignment, reconfiguration and/or reconstruction of the I-15 interchanges including the North Payson Interchange, the SR-164 Benjamin Interchange, the US 6 Interchange, the South Springville Interchange and the North Springville Interchange would increase the visibility of the interchange infrastructure to adjacent properties. This reconstruction would widen the footprint of the I-15 interchanges, bringing the freeway infrastructure closer to adjacent land uses.

Central Utah County Section

The Preferred Alternative includes Option C at American Fork Main Street, and Option D in the Provo/Orem area as The Preferred Alternative does not include frontage roads addressed below in Options A and B, nor the Orem 800 South interchange in Options A and C. For comparative purposes, these elements of other options are discussed below.

Noise barriers, the addition of a frontage road system and a new 800 South interchange under Options A and B, and the larger footprint of the reconstructed I-15 would be substantial changes to the existing visual environment along I-15 in the Provo and Orem area.

With the addition of frontage roads under Options A and B, and a new 800 South interchange under Options A and C, the views from I-15 would be changed in that the freeway infrastructure would occupy more of the foreground views. Views of I-15 from adjacent properties would include highway infrastructure that would be much wider than the existing condition. For I-15 users, foreground views of Options A and B would include more roadway infrastructure compared to existing or Alternative 1 conditions.

Many of the proposed I-15 on-ramps and off-ramps would be constructed where existing roads are already present. As a result, Options A and B under Alternative 4 would reinforce the presence of these features rather than introduce new pavement to areas where roadway elements are not already present. As the 1200 North underpass and the 800 South interchange are new additions to the freeway, they would introduce substantial new visual elements for adjacent land uses.

Representative view locations near where I-15 improvements are proposed were used to analyze potential impacts for viewers looking toward the freeway. In many of these view locations, I-15 is not in the foreground and the changes would not be as visually apparent as they would be for properties immediately adjacent to the freeway.

More substantial visual impacts would occur under Provo/Orem Options A and B which would include construction of a new frontage road system. Frontage road locations would affect existing views from nearby areas. For example, in the North and Sunset neighborhoods of Orem, 1200 West would be realigned east of the Orem Center Street Interchange requiring removal of existing homes and buildings. This change in alignment would disrupt the existing

visual unity of the adjacent neighborhood. The new road would require displacing a portion of an existing Utah Valley State College parking lot. It would also pass through a vacant area in front of existing homes and thus add another human-made feature.

In the Fort Utah neighborhood of Provo, Alternative 4 would require the displacement of existing mobile homes and established vegetation near the I-15 right-of-way. This would extend the freeway closer to the neighborhood and open new views toward the freeway for the remaining homes. Just to the north in the Lakeview South neighborhood, there would be less impact. Proposed improvements would occur approximately 300 feet east of the nearest homes in this location and would not greatly alter existing views toward the freeway.

Under Options A and B, where new access roads would be needed to and from frontage roads, the introduction of new paved surfaces would add additional human elements to the existing visual setting. For some neighborhoods this would lead to a greater visual encroachment of roadway-related uses, resulting in an increase in urbanized character. The introduction of new or additional paved surfaces may also decrease the visual unity and intactness of residential settings by removing homes or buildings and increasing the presence of the transportation network.

Under Options C and D these potential visual impacts would be less since new frontage roads, and accompanying access roads, would not be constructed. The construction or improvement of on-ramps and off-ramps in these areas may add new human-created features to the visual setting. Overall, these features would be less visible and contribute less to changes in the visual setting than would the creation of new frontage roads in this section.

The existing Provo Center Street viaduct over the railroad track and the existing southbound I-15 to eastbound Center street flyover would be removed. The removal of these two very visible elevated structures would reduce the visibility of the I-15 infrastructure at these locations. The proposed 1200 West realignment near Orem Center Street would introduce a new roadway that would be very visible to the adjacent residential community.

The University Parkway and University Avenue interchanges were constructed including visual design elements developed through UDOT's CSS planning process. With the improvements to these interchanges in Alternative 4, some of these elements would be removed.

Long sections of noise barriers are warranted through the Provo and Orem area. Eight noise barriers were found to be reasonable and feasible for this section of I-15 (see Section 3.7.4 of this Chapter); two of these barriers would replace existing noise barriers. The TNM analysis showed that the needed barriers would range in height from 8 feet to 16 feet high. These barriers would extend from about 1,000 feet long to almost 11,000 feet or two miles long. Table 3.7-9 in Section 3.7.4 provides the detail on each barrier. The barriers would generally be constructed on the edge of shoulder of the I-15 mainline.

Properties that are adjacent to existing noise walls in Alternative 4 would continue to have views of the I-15 noise barriers as the existing barriers would be replaced. The six new barrier placements would introduce a new and very visible infrastructure that is integrated into the overall view of the I-15 freeway. Travelers on I-15 would have their views of the valley, Utah Lake and mountains reduced by the new barriers. The visibility of billboards from I-15 would also be reduced by the noise barriers.

North Utah County Section

Required noise barriers would be the major source of visual impact in this section. Five noise barriers will be required including 6400 feet of eight-foot-high barrier, over 12,000 feet of ten-foot-high barrier, two 12-foot-high barriers measuring 7830 feet and 3700 feet in length, and an 18-foot-high barrier almost 1000 feet in length.. The new barriers would introduce a new and very visible infrastructure that is integrated into the overall view of the I-15 freeway. Travelers on I-15 would have their views of the valley, Utah Lake, the western mountains, and the Wasatch Ranges reduced by the new barriers. The visibility of billboards from I-15 would also be reduced by the noise barriers. Properties adjacent to I-15 would have views of the new noise barriers that are major visual element additions to their existing views of I-15.

Interchange modifications would occur at the Pleasant Grove, American Fork Main Street, Lehi Main Street, Lehi 1200 West and Alpine Interchanges. A new single-point urban interchange would be provided in North Lehi. Along the freeway the main impact would occur to foreground and middleground views where additional human-created features such as new travel lanes, ramps and overpasses would be most visible. Because the freeway dominates existing views along the freeway this would not substantially alter I-15 users' views from the freeway.

The Pleasant Grove interchange was constructed with visual design elements developed through UDOT's CSS process. These elements would be removed with the interchange reconstruction.

Options A, B and C for the American Fork Main Street interchange would have similar visual impact in the vicinity of I-15. All three would reconstruct the existing interchange such that adjacent properties would continue to have views of highway infrastructure. Looking toward the freeway, potential changes to the visual setting would not be substantial as the I-15 infrastructure would not be in the foreground of most viewers. Properties immediately adjacent to I-15 would continue to have freeway infrastructure in their foreground views.

As all three options extend Main Street westward, this would introduce new roadway features and infrastructure into the view of properties immediately adjacent to the extended Main Street.

South Salt Lake County Section

A new noise barrier would have the most visual impact on this section of I-15. One 8,000-foot long 12-foot high barrier is warranted in this section. It would introduce a new substantive element into the view of the I-15 freeway and would restrict the east and west views of travelers from I-15. The visibility of billboards from I-15 would also be reduced by the noise barriers.

Widening of the existing I-15 mainline and interchange modifications would occur at the Bluffdale, Bangerter Highway, and 12300 South Interchanges. The majority of these improvements would occur within the existing I-15 right-of-way such that foreground and middle ground views of additional pavement would not change the visual character of the existing setting.

3.9.3 Indirect Impacts

Alternative 4 would have no indirect impacts on the visual quality of I-15.

3.9.4 Mitigation

UDOT will apply their Context Sensitive Solutions principles and process to develop appropriate and sustainable landscape treatments and incorporate appropriate aesthetic treatments for the highway design elements, including interchanges, noise barriers, retaining walls, and structures. The visual impact of these structural elements will be mitigated by incorporating architectural design elements that reflect local community or regional characteristics.

In addition to replacing the CSS elements lost with the modifications and/or reconstruction of the University Avenue, University Parkway and Pleasant Grove interchanges, the design of all other reconstructed and new interchanges will follow the CSS principles and process.

Visual impacts will also be mitigated through the use of landscaping to replace natural vegetation and existing freeway landscaping that will be removed as part of the Preferred Alternative.

3.10 Pedestrian and Bicycle Transportation

Pedestrians and bicycles are not permitted on I-15. However, walking and bicycling are important activities and modes of transportation in the vicinity of I-15, particularly in urban areas and in proximity to recreational uses and destinations.

I-15 impedes east-west pedestrian and bicycle movements, as well as travel between two of the most significant recreational pedestrian/ bicycle facilities in Utah County - Utah Lake to the west of I-15, and the Bonneville Shoreline trail system to the east. As a result, pedestrian and bicycle activities are channelized across I-15 within road corridors that pass over or under the freeway, or within stream, irrigation and drainage corridors that pass beneath it.

Pedestrian and bicycle facilities are composed of various trails, sidewalks, routes and pathways. For the purposes of this assessment, facilities encompass trails, pathways, routes and sidewalks which currently exist, in addition to those that are planned for the future. Some are single-use facilities, while others accommodate multiple-modes of pedestrian and bicycle activities.

The locations of existing and planned facilities were determined through a review of local jurisdiction master plans and plans prepared by the Mountainlands Association of Governments or Wasatch Front Regional Council.

3.10.1 Existing and Planned Facilities

The existing and planned pedestrian and bicycle facilities were identified through review of County, MPO and local jurisdiction planning documents and examination of aerial mapping for the I-15 project.

3.10.1.1 South Utah County Facilities

As illustrated in Figure 3.10-1, the areas where pedestrian and bicycle facilities cross or are planned to cross I-15 are particularly important when addressing the affected environment. The status of the facilities in this section is described in Table 3-10.1. Each is cross-referenced by a number to Figure 3.10-1.

Table 3-10.1: Existing and Planned Pedestrian and Bicycle Facilities - South Utah County Section

# On Fig. 3.10-1	Facility Name/ Location	Facility Type/Size	Planning Municipality/ Jurisdiction	Existing (E) or Planned (P) Facility	Notes
1	Dry Creek Corridor Trail / Payson South Trail	10' Asphalt Trail (MAG)	Payson	P	To be located within Dry Creek stream corridor.
2	Nebo Loop Scenic Byway Trail	10' Asphalt Trail (MAG)	Payson	P	Probable trail connection to the west.
3	Scenic Ridge Trail	10' Asphalt Trail (MAG)	Spanish Fork	P	To be located within Spanish Fork River corridor.
4	6800 South Trail	Planned Future Trail (MP)	Spanish Fork	P	Existing underpass crossing.
5	300 West Trail	Planned Future Trail (MP)	Spanish Fork	P	Existing underpass crossing.
6	200 E. Trail	Planned Future Trail (MP)	Spanish Fork	P	200 East does not connect at present. Located in complex intersection area.
7	Rail Line Trailway (approximately 200 East 1600 North)	Planned Future Trail (MP)	Spanish Fork	P	To be located within UP Railroad corridor.
8	2700 North Trail	Planned Future Trail (MP)	Spanish Fork	P	Overpass exists.
9	SR 75 / North Springville Exit 261 Hobble Creek Trail	5' concrete Sidewalk 6' Striped Bike lane (MAG)	Springville	E	Recently reconstructed interchange with pedestrian and bicycle facilities.

MP = According to a city master plan MAG = According to Mountainland Association of Governments' plan

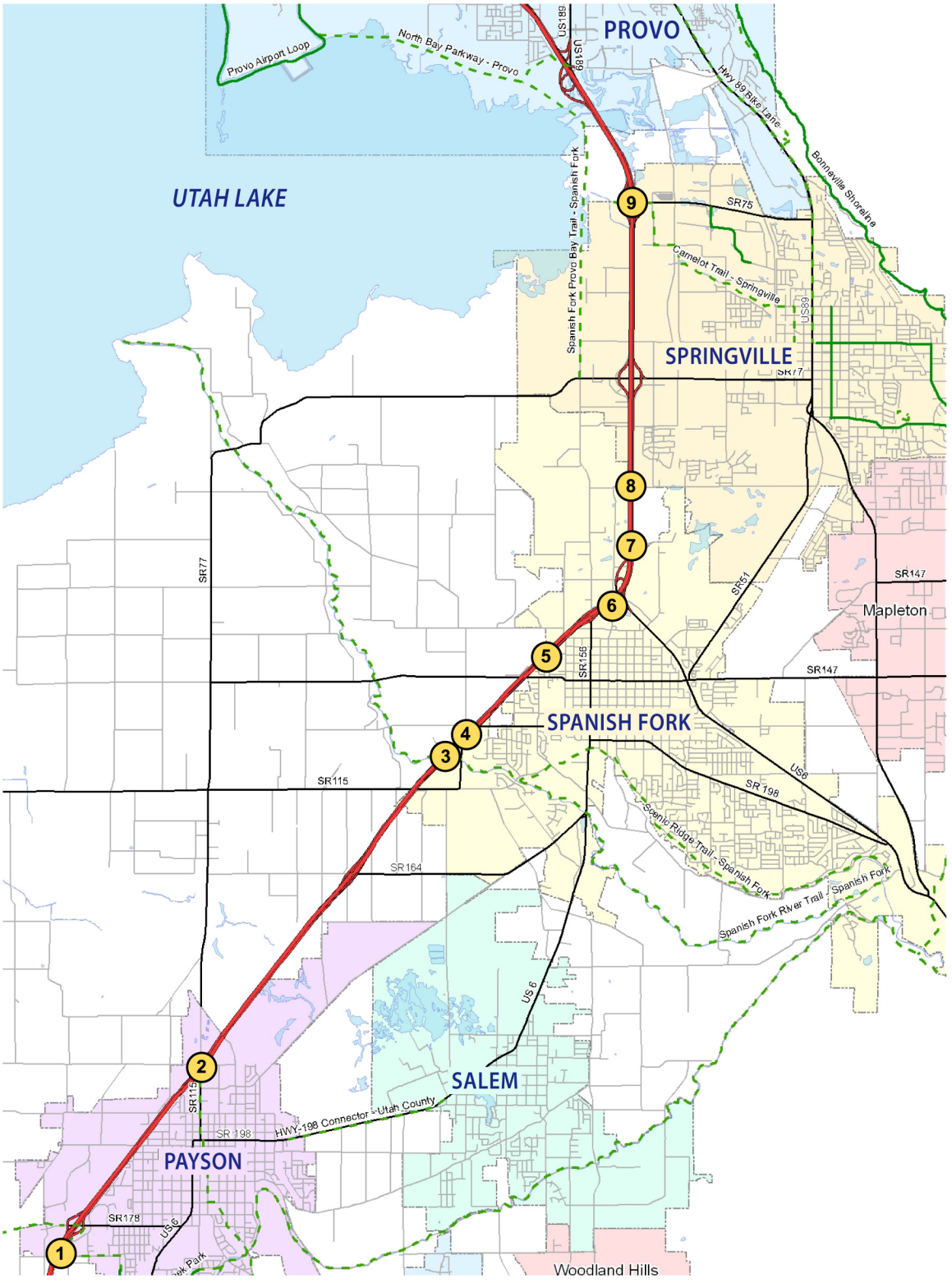


Figure 3.10-1

Pedestrian & Bike Facilities - South Utah County Trails and I-15 Interface

LEGEND:

County Boundary | I-15 | Minor Roadway | Existing Trail

Water Bodies | Major Roadway | Future Trail

N

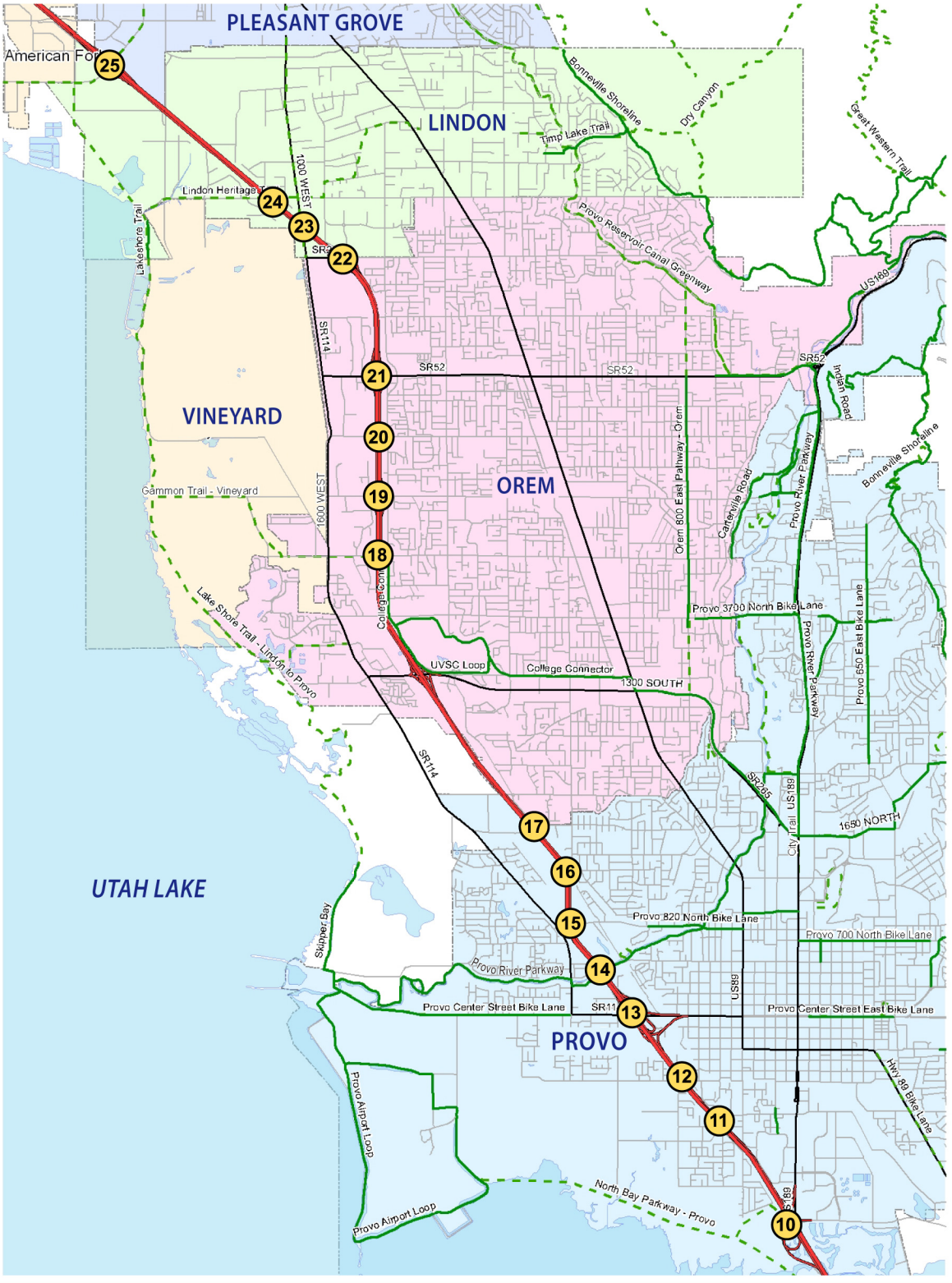


Figure 3.10-2

Pedestrian & Bike Facilities - Central Utah County Trails and I-15 Interface

LEGEND:

County Boundary | I-15 | Minor Roadway | Existing Trail

Water Bodies | Major Roadway | Future Trail

N

3.10.1.2 Central Utah County Facilities

Existing and planned pedestrian bicycle facilities in the Central Utah County Section are shown in Table 3.10-2 and in Figure 3.10-2 on the preceding page.

Table 3.10-2: Existing and Planned Pedestrian and Bicycle Facilities - Central Utah County Section

#	Facility Name/ Location	Facility Type	Planning Municipality/ Jurisdiction	Existing (E) or Planned (P) Facility	Notes
10	University Avenue Exit 263	Proposed Multi-Use Pathways (MP)	Provo	P	Unclear connection. Linkage destination to west is unclear.
11	920 South 770 West Bikeway	Proposed Bikeway (MP)	Provo	P	Existing underpass. Sidewalks exist.
12	600 South Bikeway	Proposed Bikeway (MP)	Provo	P	Existing underpass. Sidewalks exist.
13	Provo Center Street Exit 265	Proposed Multi-Use Pathways (MP)	Provo	P	Reconfigured intersection.
14	Provo River Trail	Existing Multi-Use Pathways (MP)	Provo	E	Located within Provo River corridor.
15	820 South Multi-Use Pathway/Bikeway	Proposed Multi-Use Pathways/Bikeway (MP)	Provo	P	Existing underpass.
16	Rail Line Trailway	Proposed Multi-Use Pathways (MP)	Provo	P	Proposed within existing UP Railroad corridor/ underpass.
17	1680 North (or 2200 South) Bikeway	Proposed Bikeway (MP)	Provo	P	Proposed within new underpass crossing.
18	400 S. Bike Route	Bicycle Route (MP)	Orem	P	Existing underpass.
19	Orem Center Street Exit 271 Bike Route	Bicycle Route (MP)	Orem	P	Reconfigured overpass crossing
20	400 North Bike Lane	Bicycle Lane (MP)	Orem	P	Existing underpass crossing
21	800 North Multi-Use Path	Multi-Use Path (MP)	Orem	P	Reconfigured overpass crossing
22	Orem 1600 North Exit 273	Bicycle Route (MP)	Orem	P	Reconfigured overpass crossing
23	Geneva Road Trail	Regional Trail / 10' Asphalt Trail (MP)	Lindon	P	Existing underpass crossing
24	Timplake Trail Lindon Heritage Trail	10' Asphalt Trail (MAG)	Lindon	P	To be located within undefined stream or drainage corridor
25	Pleasant Grove Boulevard Trail	10' Asphalt Trail (MAG)	Pleasant Grove	P	Probable trail connection to the west utilizing existing overpass crossing

MP =According to a city master plan MAG = According to Mountainland Association of Governments' data

3.10.1.3 North Utah County Facilities

Existing and planned bicycle and pedestrian facilities in the North Utah County section are shown in Table 3.10-3 and in Figure 3.10-3. The Preferred Alternative accommodates a proposed pedestrian crossing at Dry Creek. Lehi City

will be responsible for construction of the trail leading up to the proposed crossing. Coordination will take place between UDOT and Lehi City as the design progresses.

Table 3.10-3: Existing and Planned Pedestrian and Bicycle Facilities - North Utah County Section

#	Facility Name/ Location	Facility Type	Planning Municipality/ Jurisdiction	Existing (E) or Planned (P) Facility	Notes
26	American Fork Center Street Trail / Spring Creek Trail	10' Asphalt Trail (MAG)	American Fork	P	Assumed location within existing American Fork River corridor
27	American Fork Main Street Trail	10' Asphalt Trail (MAG)	American Fork	P	Reconfigured overpass crossing
28	American Fork River Trail	10' Asphalt Trail (MAG)	American Fork	P	Proposed within Mill Pond headwater corridor
29	Historic Utah Southern Railroad Trail	Open Space Trail Corridor (MP) / 10' Asphalt (MAG)	Lehi	P	To be located within UP Railroad Corridor, on east edge of State Street (US 89)
30	Dry Creek Parkway Trail	Open Space Trail Corridor /10' Crushed Stone Trail (MP, MAG)	Lehi	P	To be located within Dry Creek stream corridor, as requested by the City of Lehi.
31	Historic Utah Southern Railroad Trail	Open Space Trail Corridor 10' Asphalt Trail (MP, MAG)	Lehi	P	To be located within UP Railroad corridor
32	Murdock Canal Trail / Provo Reservoir Canal Greenway / Jordan River-Murdock Canal Connector Trail	Open Space/Pedestrian Trail Corridor (MP) 10' Asphalt Trail (MP, MAG)	Lehi	P	Assumed crossing on reconfigured SR-92 overpass crossing

MP = According to a city master plan MAG = According to Mountainland Association of Governments' plan

3.10.1.4 South Salt Lake County Facilities

Existing and planned pedestrian and bicycle facilities are shown in Table 3.10-4 and in Figure 3.10-4. During the public comment period, the I-15 team met with representatives from Draper and Bluffdale to discuss trail connectivity across I-15, and a number of other issues. A trail crossing has been accommodated at 14600 South in Draper, and UDOT will continue to coordinate with the cities as designs progress. Please see the Response to Comments section in the appendices.

Table 3.10-4: Existing and Planned Pedestrian and Bicycle Facilities - South Salt Lake County Section

#	Facility Name/ Location	Facility Type	Planning Municipality/ Jurisdiction	Existing (E) or Planned (P) Facility	Notes
33	Point of the Mountain Trail	Asphalt Trail	Draper and UTA	P	Within existing UTA right-of-way or frontage road Preferred Alternative includes a multi-use undercrossing just south of the 14600 Interchange (See Figure 3.10-4).

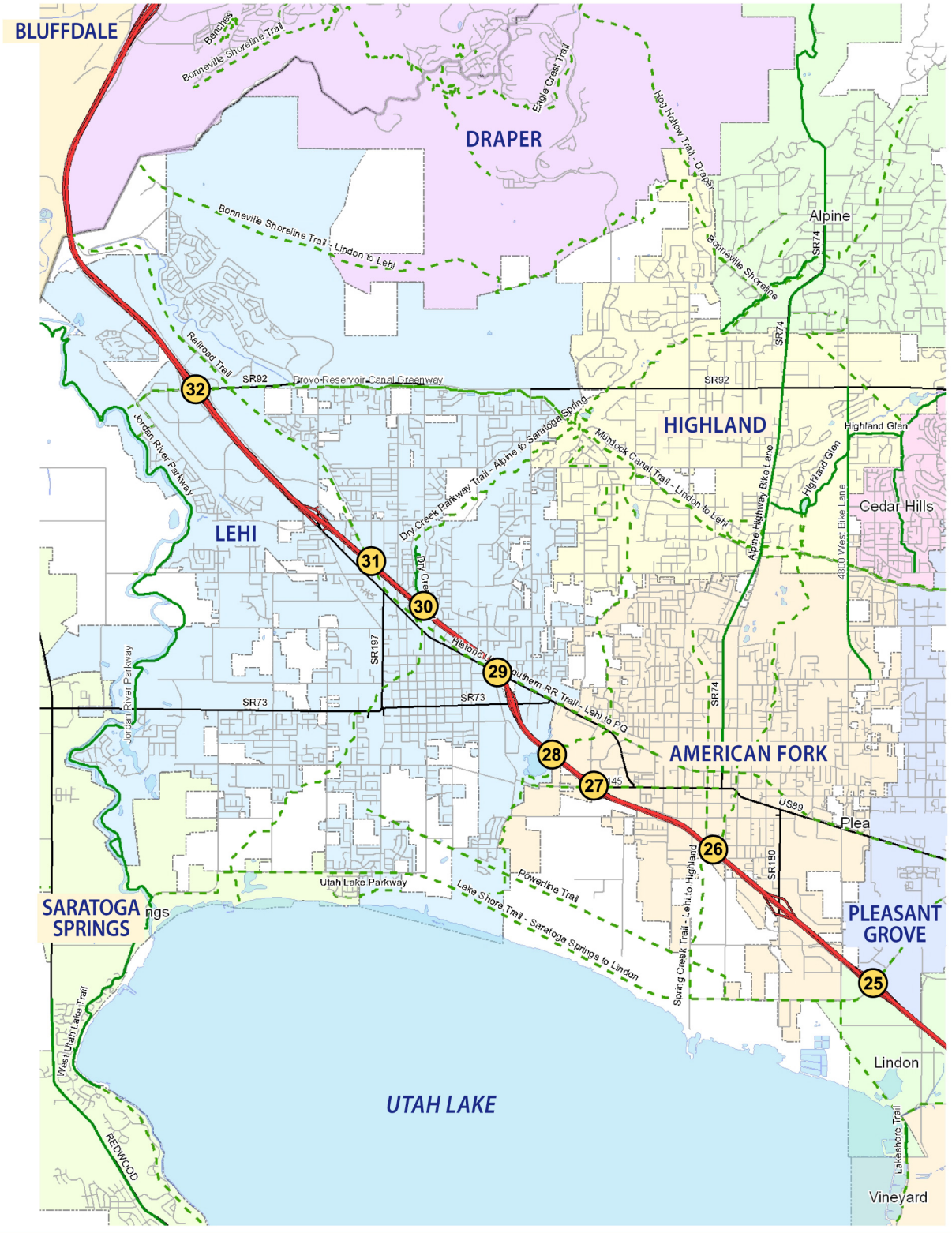


Figure 3.10-3

Pedestrian & Bike Facilities - North Utah County Trails and I-15 Interface

LEGEND:

County Boundary | I-15 | Minor Roadway | Existing Trail

Water Bodies | Major Roadway | Future Trail

N

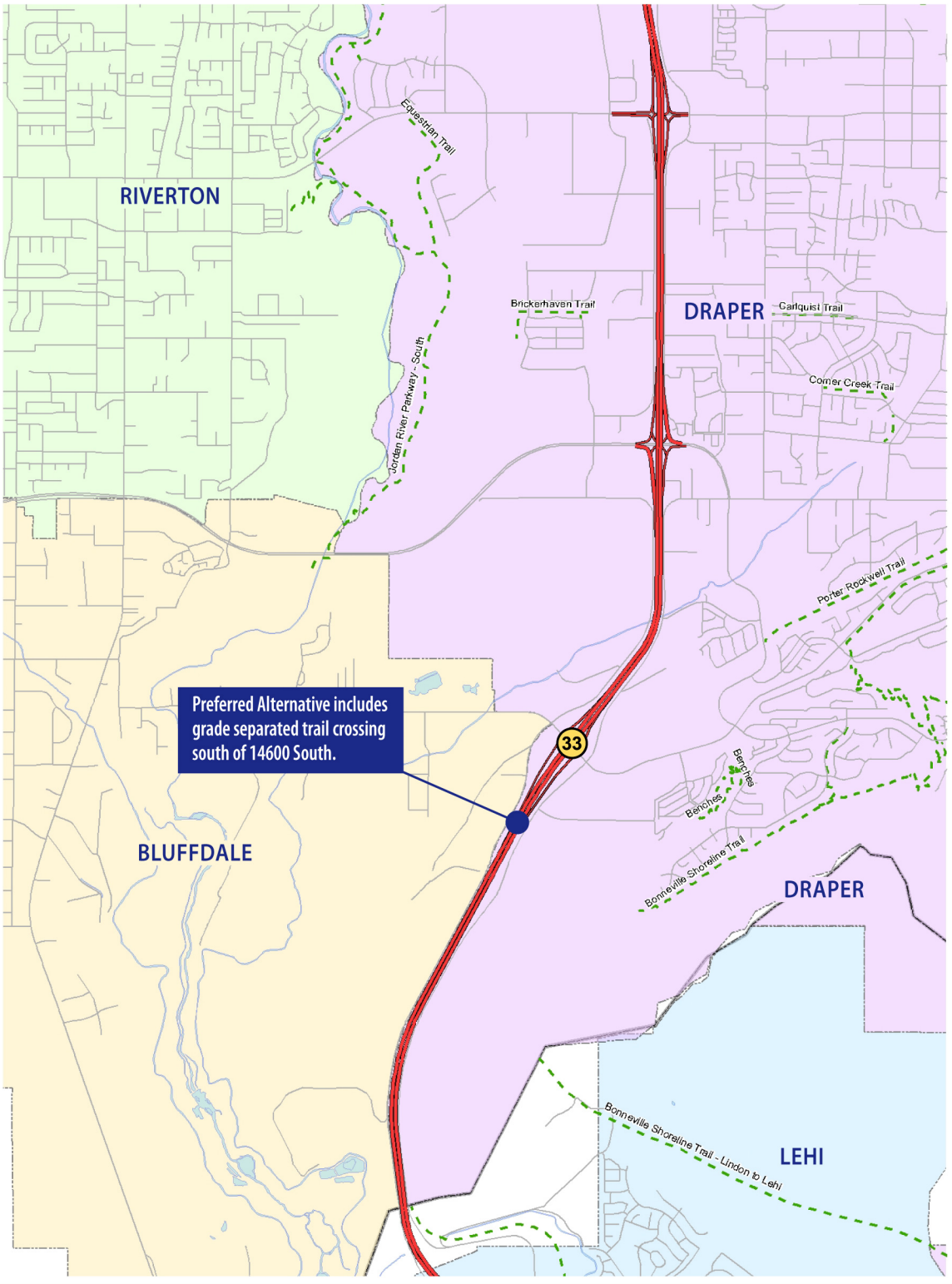


Figure 3.10-4

Pedestrian & Bike Facilities - South Salt Lake County Trails and I-15 Interface

LEGEND:

County Boundary | I-15 | Minor Roadway | Existing Trail

Water Bodies | Major Roadway | Future Trail

N

3.10.2 Impacts of Alternative 1

Alternative 1 would not impact existing pedestrian and bicycle facilities. It would not preclude implementation of planned pedestrian and bicycle facilities but would not facilitate their incorporation into the existing I-15 infrastructure.

3.10.3 Impacts of Alternative 4

Alternative 4 would allow for the existing and planned pedestrian and bicycle facilities that are defined in the WRFC and MAG plans, and in city or county master plans. The detailed configuration of each facility would be determined during final design of I-15. Proposed facilities that would use stream, canal and drainage corridors to cross I-15 would be allowed for in the design of I-15 such that sufficient room between bridge abutments over these water courses would accommodate a multi-use pathway. Pedestrian and bicycle facilities proposed for new and reconfigured I-15 interchanges would be implemented as part of the project. Those bicycle and pedestrian facilities that do not cross I-15 would not be implemented as part of the I-15 project.

In Central Utah County, the existing Provo River Trail connection beneath I-15 would be maintained and reconstructed. The frontage road alternatives (Provo/Orem Option A and Provo/Orem Option B) include sidewalks on each of the cross streets: Provo Center Street, Provo 820 North, Provo 1740 North, and Provo 2000 North/Orem 2000 South. Options A and C include a new Orem 800 South interchange that would provide a new opportunity for pedestrians and bicyclists to cross I-15. Option B does not include the 800 South interchange and therefore would not provide this additional crossing opportunity.

There are no differences in impacts to pedestrian and bicyclist facilities among the design options in the American Fork Main Street design options (A, B, and C).

In South Salt Lake County, the Point of the Mountain Trail would be incorporated into the combined design of Alternative 4 and the parallel north/south frontage road on the east side of I-15.

3.10.4 Indirect Impacts

Provision of pedestrian and bicycle connections across I-15 may have an indirect impact. Cities adjacent to I-15 may be encouraged to implement their planned pedestrian and bicycle connections on either side of these I-15 crossings.

3.10.5 Mitigation

The final design of each I-15 interchange will provide for east/west pedestrian/bicycle access across I-15. The type of facility will be determined during design and may be a multi-use sidewalk, a sidewalk for pedestrians, and/or on-street lane for bicyclists. Although MPO and local plans do not show I-15 crossings at each I-15 interchange, it is reasonable to provide for a connection across I-15 to facilitate east-west movement and to increase connections between communities. The provision of these connections is consistent with UDOT policy with regard to Context Sensitive Solutions (CSS). The intent of CSS is to offer transportation solutions that help connect communities and improve the quality of life.

3.11 Hazardous Materials

Hazardous materials and potential contaminants must be considered within project alternatives to determine if the potential project is impacted by any identified hazardous material sites. Identification of sites and determination of whether project alternatives would use, generate or store any hazardous materials that may expose construction workers or I-15 motorists to health threats from contaminants is discussed in this section.

3.11.1 Methodology

The existing federal and state environmental databases were reviewed to determine the presence of sites with hazardous material related concerns near the project corridor. The study area for the hazardous materials assessment followed American Society for Testing and Materials (ASTM) Standard search distances for government agency file records of potential contaminant sources (PCSs) in the vicinity of the project area. Government agency files were analyzed to determine the location and extent of potential contamination sources near the project area. Where available, historical and current topographic maps and aerial photography provided detail regarding past and present land use of the project area and the surrounding area. A physical reconnaissance of the project area was used to gather information regarding the presence or absence of conspicuous conditions indicating potential environmental problems. The site visit included a visual survey of properties adjacent to I-15 to identify businesses or features which could have the potential to affect the project area. Analysis included sufficient detail to determine the likelihood that contamination may exist in the project corridor, or close enough to the corridor to have measurable effects. The alternatives discussion includes the location of PCSs and mitigation measures for potential impacts to human health and the environment.

3.11.1.1 Historical Records Review

Historical maps included aerial photographs and historical topographic maps for the years 1972, 1997, and 2006 for the majority of the I-15 corridor (Terra Server, 2006). Historical mapping showed development in and around the project area in a similar state as it is today. Several of the current communities and towns along I-15 were visible for each year reviewed including the towns of Springville, Payson, Orem, Provo, Lehi, and Draper. Much of the development in these areas over the previous 35 years remains similar to their current conditions. The cities along the I-15 corridor contain small to medium-sized commercial and light industrial districts with a limited number of larger industrial facilities located near the project area. Large areas of agricultural and undeveloped land separate the towns along the southern half of the I-15 corridor. A limited number of properties along the I-15 corridor have been historically associated with the use, storage, or generation of hazardous materials and generally present a low risk of contributing to hazardous material being encountered along the project area.

3.11.1.2 Regulatory Review

A review of both federal and state databases was conducted to identify former and current land uses that could result in the contamination of soil and/or groundwater on or adjacent to the I-15 corridor. The objective of this review was to identify and document reported releases of hazardous or toxic materials to the environment and to identify commercial businesses and industries that use, generate, store, transport, or dispose of regulated hazardous materials in the normal course of business.

3.11.1.3 Environmental Database Report

A regulatory database search was conducted consistent with the ASTM requirements for environmental site assessments (ESAs). Environmental Data Resources (EDR) was contracted to provide a comprehensive search of existing environmental regulatory agency databases for known or suspected environmental concerns within the project area. The EDR report includes a list of databases searched, a statistical profile indicating the number of properties within the project area, selected detailed information from federal and state lists, and maps illustrating the identified sites of interest or concern within the project area. The EDR report used for this hazardous materials

assessment is entitled *EDR Data Map Environmental Atlas, I-15 Corridor DEIS, Salt Lake, UT, Inquiry Number 01871877.1r.* Identified sites are located on maps provided by EDR.

The search of publicly available federal, state, and local environmental databases for information on sites includes, but is not limited to, the following operations:

- Location of registered underground storage tanks (USTs) and leaking underground storage tanks (LUSTs)
- Facilities that use, generate, treat, store, or dispose of hazardous wastes and/or substances
- Transporters of hazardous wastes
- Solid waste landfill locations
- Unauthorized spills and releases of hazardous/regulated substances
- Sites undergoing investigations and/or cleanup

The environmental databases searched for this project are summarized in Table 3.11-1. Of the databases searched, special consideration was given to sites identified within the following databases: National Priorities List (NPL), Comprehensive Environmental Response Compensation and Liability Act (CERCLA), No Further Remedial Action Planned (NFRAP) CERCLA, Resource Conservation and Recovery Act (RCRA), LUST sites, and UST sites. Sites identified in these databases are the most likely to contribute to hazardous material conditions at nearby properties.

Table 3.11-1: Environmental Databases Searched

Environmental Databases	
Federal Records	
NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL Recovery	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Info System
CERCLA-NFRAP	CERCLIS – No Further Action Plan Sites
CORRACTS	Corrective Action Report
RCRAInfo	Resource Conservation and Recovery Information System (RCRIS) data recording
RCRIS-LQG	RCRIS – Large Quantity Generator of Hazardous Waste
RCRIS-SQG	RCRIS – Small Quantity Generator of Hazardous Waste
ENG CONTROLS	Sites with engineering controls in place
DOD	Lands owned or administered by the Department of Defense
CONSENT	Superfund Consent Decrees
TRIS	Toxic Release Inventory System
FTTS	Federal Insecticide, Fungicide & Rodenticide Act (FIFRA), TSCA and Emergency Planning and Community Right-to-Know Act (EPCRA) Tracking System
PADS	PCB Activity Database
FINDS	Facility Index System
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System

Table 3.11-1: Environmental Databases Searched - continued

Environmental Databases	
Federal Records continued	
FUDS	Formerly Used Defense Sites
US Brownfields	A listing of Brownfields Sites
ROD	Records of Decision
UMTRA	Uranium Mill Tailings Sites
ODI	Open Dump Inventory
TSCA	Toxic Substances Control Act
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
RADINFO	Radiation Information Database
US CDL	Clandestine Drug Labs
LUCIS	Land Use Control Information System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
RAATS	RCRA Administrative Action Tracking System
State and Local Records	
SHWS	Utah does not maintain a SHWS list. See Federal CERCLIS and Federal NPL.
SWF/LF	Solid Waste Facilities/Landfill Sites
LUST	Leaking Underground Storage Tank Sites
UST	Underground Storage Tank Sites
LAST	Leaking Aboveground Storage Tank Sites
AST	Aboveground Storage Tank Sites
SPILLS	Spill Incidents reported to the Division of Environmental Response & Remediation
VCP	Voluntary Cleanup Program Sites
DRYCLEANERS	Registered Dry cleaning Facilities
INST CONTROL	Sites with Institutional Controls
NPDES	National Pollution Discharge Elimination System of water quality permits
EDR Manufactured Gas Plants	Compilation of historical Coal Gas Plants (manufactured gas plants)
BROWNFIELDS	Brownfields Assessment Sites Listing
Tribal Records	
INDIAN RESERV	Indian Reservations
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
INDIAN UST	Underground Storage Tanks on Indian Land

3.11.1.4 Environmental Database Analysis

Sites identified during the environmental database search were screened to determine their potential to impact the project, based on whether they were on or adjacent to I-15, within one-quarter mile, one-half mile, or one mile from I-15. The base screening criteria considered the nature of the database listing (e.g., the occurrence or potential for a contaminant release) and the distance of the listed site from the project alignment. The database review provided a means to evaluate a large number of environmental database sites and to identify the sites that potentially impact the project area.

After the base screening criteria was applied, sites were further evaluated by reviewing the site-specific information provided in the database report to assess the potential for a site to adversely impact construction (e.g., small spill, soil contamination only, case closed, etc.). Following the application of the screening criteria, sites were either no longer considered to impact the project corridor or recommended for further evaluation, including field reconnaissance and, if necessary, regulatory file review. Through the process of identifying and evaluating sites, those sites where environmental contamination was initially perceived, but not identifiable from the database review, were further evaluated during field reconnaissance and, if necessary, regulatory file review.

3.11.1.5 Results of Environmental Database Review

Three-hundred and ten of the 317 sites identified in the EDR Report were reviewed and eliminated from consideration to potentially impact the project area. Reasons for elimination included a site's relative distance from areas that would be disturbed during construction, the identification of no reported releases to the environment at the site, and/or a complete site remediation or a site case closed. The seven remaining sites were further evaluated during the site reconnaissance. Tables 3.11-2 through 3.11-5, provide detail on the seven potential contamination sites identified in the EDR Report by I-15 Corridor geographic sections.

The location of 1,840 additional sites identified in the report was not adequately documented or considered incomplete; these sites were not mapped within the EDR reports. The 1,840 unmapped sites were reviewed and eliminated based on each site's relative distance from the project area and/or no documented environmental releases at the site. The distance between each site and the project area was determined by mapping site addresses provided in the EDR Report.

3.11.1.6 Site Reconnaissance of the Project Corridor

A site reconnaissance was performed on April 24 and 25, 2007 to identify any current uses in the I-15 Project corridor likely to involve the use, treatment, storage, or disposal of hazardous materials and to verify the location of sites listed with the environmental database report associated with the regulatory review. The site reconnaissance included locating sites that were identified in the EDR Report, but due to inadequate addresses, were not located in the report. All observations were from public viewing areas. Detailed site investigations were not conducted.

Based on the environmental database information and site reconnaissance of the project corridor, areas of potential hazardous material concern along the I-15 corridor were evaluated in terms of low, moderate, and high potential for exposure of the public or construction workers to hazardous materials. Two additional PCS sites were identified during site reconnaissance. These sites are described below and are also included in Section 3.11.3, in the discussion of Alternative 4 - I-15 Widening and Reconstruction.

Payson Diesel and a former service station site were included in the list of PCSs based on site reconnaissance activities. Payson Diesel is located at 838 North Main Street in Payson. The property is located just east of the Flying J Service Station, which is east of the North Payson Interchange at Mile Post (MP) 250. Site conditions included soil staining and vegetation loss from vehicle spills and large vehicle maintenance on site. A large number of storage drums and containers normally associated with hazardous materials were located on the Payson Diesel site.

No address was visible at Site 8, Former Service Station, located southwest of the Lehi 1200 West Interchange at MP 282. The former service station building on site appeared to be in use for a construction or landscaping business. Site conditions suggest that underground storage tanks may remain on site. The Former Service Station site is located at or near a future side street included in the I-15 Project that would connect 1200 West to State Street, south of the I-15/Lehi Interchange.

3.11.2 Alternative 1: No Build Impacts

No reconstruction of I-15 would occur; therefore, the potential for generation of or impacts from hazardous materials would not be greater than currently exists. The risk of hazardous materials exposure to the public or construction workers associated would not be greater than currently exists. Freeway response times could be worse under the No Build, due to congestion.

3.11.3 Alternative 4: I-15 Widening and Reconstruction Impacts

The impacts of Alternative 4 are presented in four geographic sections from south to north (South Utah County, Central Utah County, North Utah County, and South Salt Lake County). Figure 3.11-1 locates all PCS sites associated with the I-15 Project.

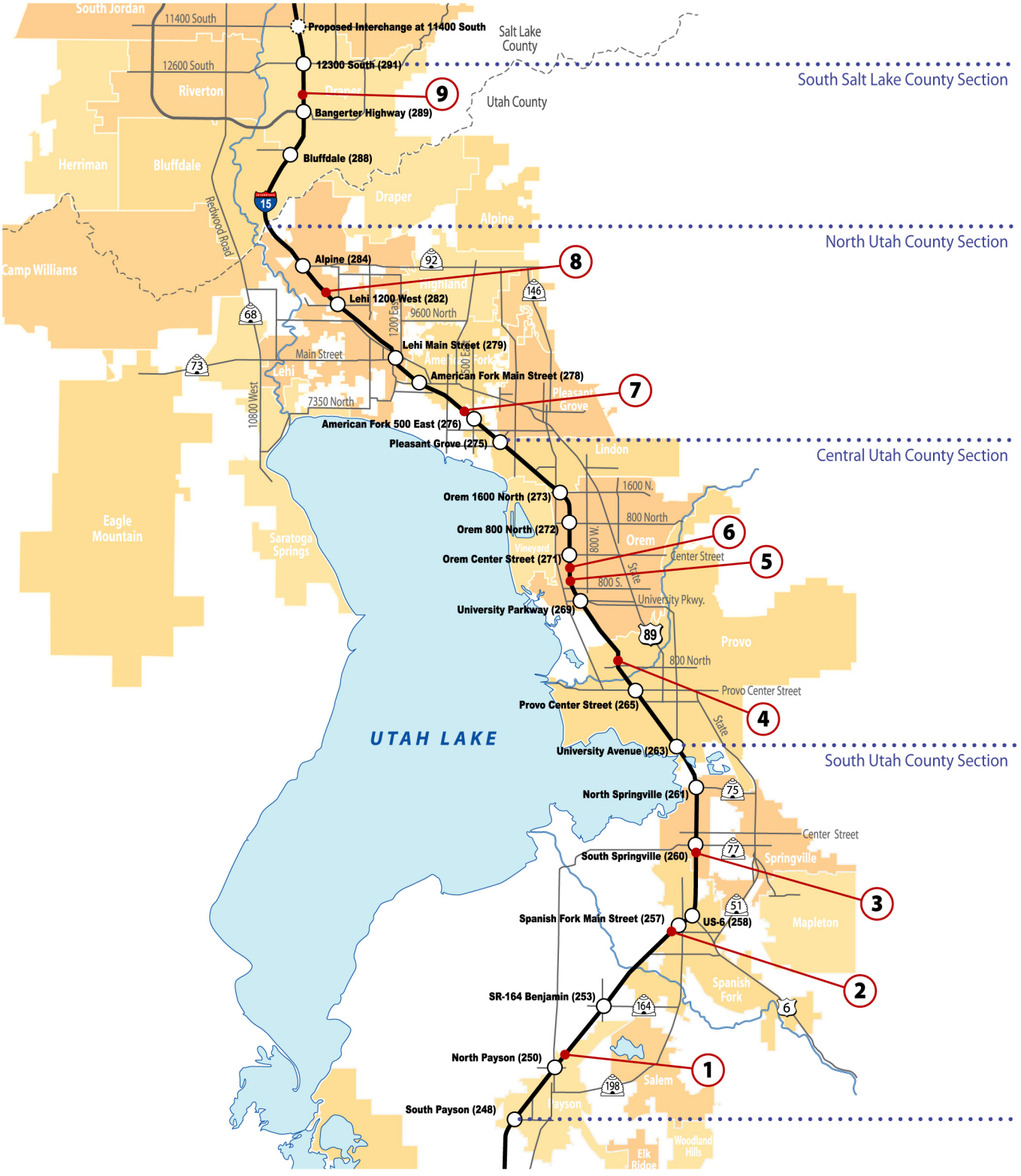
Operational impacts would be the same for all four I-15 corridor sections. Reduced traffic congestion on I-15 may lead to lower accident rates due to better Levels of Service. Lower accident rates may lead to slightly less accidents involving vehicles carrying hazardous materials. No substantial operational effects were identified.

3.11.3.1 South Utah County Section

A low potential for hazardous material impacts to occur exists during the construction of this section of I-15 because of the presence of hazardous materials at a few locations. Three PCS sites (described in Table 3.11-2 and shown in Figure 3.11-1) are located adjacent to or nearby the I-15 Project area and have been identified as having a low potential to contribute to hazardous material conditions along this section of the I-15 Project. PSC sites at or near the project area are related to historic and current site uses and are reasonably predictable sites. The Payson Diesel site appeared to be within the future right-of-way of this interchange.

Construction activities (e.g., grading, drilling, and dewatering) in the area of potential soil and/or groundwater contamination could have an impact on human health and the environment. Grading and dewatering activities in these areas during construction could cause worker exposure to the contaminants. Grading and drilling in areas of contaminated soil and groundwater could mobilize contaminants. If Utah Department of Environmental Quality (UDEQ) or Occupational Safety and Health Administration (OSHA) exposure standards are exceeded, there could be an adverse impact to the public or construction workers at or near the project area.

All structural and property acquisitions have the potential to disturb unidentified hazardous materials contained at these sites, which could affect worker safety and the environment. One hundred sixty-four private or publicly owned parcels would be affected, acquired in full, or involved in partial property acquisitions in South Utah County. Eight buildings would also be displaced.



Scale in Miles
0 1 2 3 4 5

Figure 3.11-1
Hazardous Material Sites

LEGEND:

(1) Potential Contaminant Source Locations

N

Table 3.11-2: Potential Contamination Sources (South Utah County)

Site No.	Site Name / Address	Database Listing [1]	Approximate Distance/Direction from Alignment (Miles)	Site Status
1	Payson Diesel 838 North Main Street Payson, UT 84651 (east of the North Payson Interchange at M.P. 250)	None[2]	On - Adjacent / E	Poor site conditions including soil staining, vegetation loss from vehicle spills, and a large number of hazardous materials containers improperly stored on site. Falls within the Environmental Impact Limits, shown in Volume II.
2	Combo's #2 835 N Main Street Spanish Fork, UT 84660	LUST, UST	0.25 / SE	5 of 10 tanks closed. Visual observation of site was satisfactory. Site is located within ¼ mile of the project. Low potential to impact project
3	South Utah Valley Solid Waste Distribution Springville 2450 W 400 S Springville, UT 84663	SWF/LF	0.15 / E	Site conditions were typical for the type of land use. No reported environmental releases off-site. Site is located within ¼ mile of the project. Low potential to impact project.

Sources:
1. EDR, 2007. Database Listing: Database Listings are defined in Table 3.11-1.
2. Site Reconnaissance, PB, April 2007

3.11.3.2 Central Utah County Section

A low potential for hazardous material impacts to occur exists during the construction of this section of I-15 because of the presence of hazardous materials at a few locations outside the project area. Three PCS sites (described in Table 3.11-3 and shown in Figure 3.11-1) are located near I-15 and have been identified as having a low potential to contribute to hazardous material conditions along this section of I-15. PSC sites near the project area are related to historic and current site uses and are reasonably predictable sites.

Construction activities (e.g., grading, drilling, and dewatering) in the area of potential soil and/or groundwater contamination could have an impact on human health and the environment. Grading and dewatering activities in these areas during construction could cause worker exposure to the contaminants. Grading and drilling in areas of contaminated soil and groundwater could mobilize contaminants. If UDEQ or OSHA exposure standards are exceeded, there could be an adverse impact to the public or construction workers at or near the project area.

Table 3.11-3: Potential Contamination Sources (Central Utah County)

Site No.	Site Name / Address	Database Listing [1]	Approximate Distance/ Direction from Alignment (Miles)	Site Status
4	Ford Construction 820 N 2000 W Provo, UT 84601	CERC-NFRAP	0.25 / E	Owner allegedly buried drums of solvent in a construction landfill. No Further Remedial Action Planned. Site is located within ¼ mile of the project Low potential to impact project.
5	US Steel-Geneva Works 1500 W Center St Orem, UT 84057	Multiple listings that include RCRA-LQG, RCRA-TSD, CORRACTS, CERC-NFRAP	0.25 / W	Multiple environmental violations have occurred at this facility. Corrective actions are in place for irrigation control of groundwater contamination, to control human exposure, and for stabilization. Site determination indicates that migration of contaminated groundwater is under control and monitoring is in place. Site is located within ¼ mile of the project Low potential to impact project.
6	Stesan's Travel Shop 75 N 1200 W Orem, UT 84057	LUST, UST	0.10 / E	6 of 6 tanks closed on site. Visual observation of site was satisfactory[2]. No information was identified that would indicate a large off site environmental release. Low potential to impact project.

Sources:
1. EDR, 2007. Database Listing: Database Listings are defined in Table 3.11-1.
2. Site Reconnaissance, PB, April 2007

All structural and property acquisitions have the potential to disturb unidentified hazardous materials contained at these sites, which could affect worker safety and the environment. A large number of private and publicly owned parcels would be affected, acquired in full, or involved in partial property acquisitions in Central Utah County. Depending on the option in the Provo/Orem area, between 441 and 550 parcels would be affected. Option D (the Preferred option in this area) would affect 446. Between 12 and 43 buildings would also be displaced in this section of I-15. Option D would displace 13.

3.11.3.3 North Utah County Section

A low potential for hazardous material impacts to occur exists during the construction of this section of the I-15 Project because of the presence of hazardous materials at a few locations at or near the project area. Two PCS sites (described in Table 3.11-4 and shown in Figure 3.11-1) have been identified as having a low potential to contribute to hazardous material conditions along this section of the I-15 Project. PSC sites near the project area are related to historic and current site uses and are reasonably predictable sites.

Construction activities (e.g., grading, drilling, and dewatering) in the area of potential soil and/or groundwater contamination could have an impact on human health and the environment. Grading and dewatering activities in

these areas during construction could cause worker exposure to the contaminants. Grading and drilling in areas of contaminated soil and groundwater could mobilize contaminants. If UDEQ or OSHA exposure standards are exceeded, there could be an adverse impact to the public or construction workers at or near the project area.

Table 3.11-4: Potential Contamination Sources (North Utah County)

Site No.	Site Name / Address	Database Listing [1]	Approximate Distance/Direction from Alignment (Miles)	Site Status
7	IBC Advanced Technologies, Inc. 856 E Utah Valley Dr American Fork, UT 84003	FINDS, RCRA-LQG, FTTS	0.25 / NE	Violations at this facility are related to reporting and inspection requirements. No release to the environment was reported. Site is located approximately ¼ mile from project. Low potential to impact project.
8	Former Service Station No Site Address (located SW of Lehi / 1200 W. Interchange at State Street)	None[2]	On – Adjacent / SW	USTs may remain in place on site. Visual observation of site was satisfactory with no indication of a large environmental release. Falls within the Environmental Impact Limits, shown in Volume II.

Notes: Sources:
1. EDR, 2007. Database Listing: Database Listings are defined in Table 3.11-1.
2. Site Reconnaissance, PB, April 2007

All structural and property acquisitions have the potential to disturb unidentified hazardous materials contained at these sites, which could affect worker safety and the environment. A large number of private and publicly owned parcels would be affected, acquired in full, or involved in partial property acquisitions in North Utah County depending upon design option. Between 391 and 417 parcels would be affected, depending upon which of three American Fork interchange options is selected. Option C, the Preferred option in this area, would affect 392. Eighteen or 19 buildings would also be displaced by acquisitions. Option C would displace 19 (See section 3.4).

3.11.3.4 South Salt Lake County Section

A low potential for hazardous material impacts to occur exists during the construction of this section of I-15 because of the presence of hazardous materials at one location outside the project area. One PCS site (described in Table 3.11-5 and shown in Figure 3.11-1) is located near I-15 and has been identified as having a low potential to contribute to hazardous material conditions along this section of I-15. The PSC site is related to historic and current site use and is a reasonably predictable site.

Construction activities (e.g., grading, drilling, and dewatering) in the area of potential soil and/or groundwater contamination could have an impact on human health and the environment. Grading and dewatering activities in these areas during construction could cause worker exposure to the contaminants. Grading and drilling in areas of contaminated soil and groundwater could mobilize contaminants. If UDEQ or OSHA exposure standards are exceeded, there could be an adverse impact to the public or construction workers at or near the project area.

Table 3.11-5: Potential Contamination Sources (South Salt Lake Utah County)

Site No.	Site Name / Address	Database Listing [1]	Approximate Distance/Direction from Alignment (Miles)	Site Status
9	Applied Digital Data Systems Inc. 12953 S State St Draper, UT 84020	FINDS, CERC-NFRAP	Adjacent / NE	No further remedial action planned for the site. No reported release to the environment. Low potential to impact project. Unable to locate physical location based on address[2].

Notes: Sources:
1. EDR, 2007. Database Listing: Database Listings are defined in Table 3.11-1.
2. Site Reconnaissance, PB, April 2007

All property acquisitions have the potential to disturb unidentified hazardous materials contained at these sites, which could affect worker safety and the environment. A number of private and publicly owned parcels would be affected, acquired in full, or involved in partial property acquisitions in South Salt Lake Utah County. Sixty-seven parcels would be affected. No buildings would be affected.

3.11.3.5 Comparison of Impacts -- Alternative 4 Design Options

No sites were identified within .010 miles of the Alternative 4 design options in the Central Utah County and North Utah County sections. With regard to hazardous materials sites, there are no differences among the design options in either the Provo/Orem options area or American Fork Main Street interchange area.

3.11.3.6 Indirect Impacts

Alternative 4 would have no indirect impacts on hazardous material sites in the vicinity of I-15.

3.11.4 Mitigation

For the two sites observed during the site reconnaissance, Site 1 - Payson Diesel, and Site 2 - Former Service Station, a Phase 2 Environmental Site Assessment will be conducted prior to final design and commencement of any construction activities. The results of the Assessment will determine what remediation measures, if any, will be required.

Otherwise, mitigation measures will be the same for all four I-15 geographic sections. In the event that soil and/or groundwater contamination is identified, UDOT (or the construction contractor) will be required to complete a remedial work plan to clean up the site with approval from UDEQ and/or the Environmental Protection Agency.

For structures to be demolished, a pre-construction survey for building materials containing lead-based paint, lead, asbestos-containing materials, and polychlorinated biphenyls (often found in light fixtures) will be conducted and any such materials will be disposed of appropriately.

Unknown contamination could also be encountered during excavation, earthwork, drilling, grading, demolition, and utility work. The contractor will be required to abide by UDOT Standard Specification 01355 – Environmental Protection for the discovery of hazardous materials during construction or of any hazardous materials generated by the contractor. The contractor will be required to develop and implement a project-specific hazardous waste contingency plan prior to construction activities.